

Solve for the stated variable. State restrictions on the variables.

1. Solve for T . $\frac{C+AT}{M} - 7 = W$

2. Solve for K . $E(K+5R) = \frac{C}{N}$

3. Solve for R . $RW = MK - CR$

4. Solve for Q . $\frac{7+C}{Q} - E = X$

Solve each equation or inequality.

5. $4x - 7(x+2) < 16$

6. $6k - 9 + 2k \geq 8k + 7$

7. a. $4(y-6) + y \leq 3(2y+5) - y$

b. $7 + 9a - 2(a+5) - a = 6a + 3$

Solve each compound inequality. State the answer as a single inequality, if possible. Write All Real Numbers or No Solution if applicable.

8. $2R - 1 < -11$ AND $R \geq 6$

9. $3E + 9 > -3$ OR $-2E + 1 > 5$

10. $7W < 14$ AND $W > -3$

11. $A < 12$ OR $A - 6 < -3$

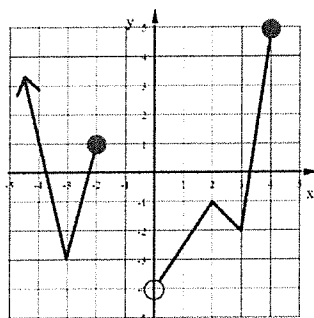
12. $K \geq 7$ AND $-3K \leq 12$

13. $2E - 1 \geq 13$ OR $E \leq 1$

For 14 and 15, state the domain and range of each relation:

14. $(2, 11), (4, 8), (2, 3), (-5, 8)$

15



Solve each Absolute Value Equation or Inequality.

16. $4|2x - 5| - 1 = 31$

17. $|5x + 3| > 11$

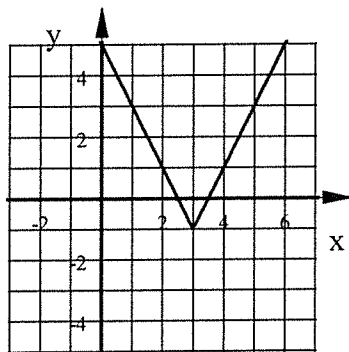
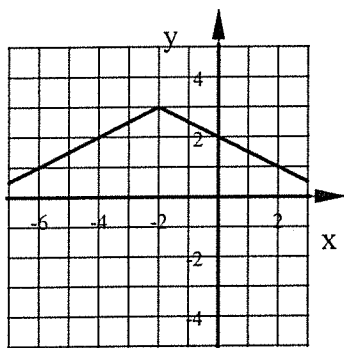
18. $|4x - 9| \leq 41$

19. $|x - 3| = 2x - 1$

Write the equation of each Absolute Value Function.

20.

21.



Graph each Absolute Value Function.

22. $y = -3|x - 1| + 5$

23. $y = \frac{3}{2}|x + 2| - 4$

Algebra 2 Quiz #1 Review

Sec 1-3 to 1-5, 2-5

ANSWERS

1. $T = \frac{M(W+7) - C}{A}$ $A, M \neq 0$ 2. $K = \frac{C}{NE} - 5R$ or $K = \frac{\frac{C}{N} - 5ER}{E}$ $N, E \neq 0$

3. $R = \frac{MK}{W+C}$ $W+C \neq 0$ 4. $\frac{7+C}{X+E}$ $X+E \neq 0, Q \neq 0$

5. $x > -10$ 6. No Sol 7. a. All Real Numbers b. No Solution

8. No Sol 9. All Real Numbers 10. $-3 < w < 2$

11. $A < 12$ 12. $K \geq 7$ 13. $E \leq 1$ or $E \geq 7$

14. Domain : $\{-5, 2, 4\}$ Range : $\{3, 8, 11\}$ 15. Domain : $x \leq -2, 0 < x \leq 4$ Range : $y > -4$

16. $x = -\frac{3}{2}, \frac{13}{2}$ 17. $x < -2.8$ or $x > 1.6$

18. $-8 \leq x \leq 12.5$ 19. $x = \frac{4}{3}$ (-2 is an extraneous solution)

20. $y = -\frac{1}{2}|x+2| + 3$ 21. $y = 2|x-3| - 1$

22. 23.

